

RELIEF SOCIETY OF TIGRAI (REST)

Drought Emergency and Rehabilitation Program

Annual report (May 2004-April 2005)

**Submitted to U.S. Agency for international
Development DCHA/OFDA**

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I. Introduction

Due to the repeated drought in the region large part of the Central and Eastern and Southern Zones are suffering from continuous food shortage and supply of water both for the people and their animals. As a result majority of them loose their domestic animals through selling to buy crops from the market and some of them die as there was no enough feed and water for the animals.

To respond to the existing problem in weredas Ahferom, Merebleke, Tanqua-Abergele, Wereeleke, Dogua-Temben, Wukro, Hawzien, H/Wajerat, and Raya-Azebo REST/OFDA started implementing Drought and Rehabilitation Program as of April 2004.

This year in majority of the project areas there was no belg rain. The main rain also started at the end of July.

This delay of both the belg and main rain makes to deplete the pasture and water sources, which threatened, even the newly bought livestock through the cash support from the program. Hence, considerable number of the livestock were started to deteriorate and their market price dropped. Moreover, farmers were unable to grow long term cycle crops, which give high yield and are forced to grow short maturing crops.

This time the amount and distribution of rain is good throughout the region. The pasture problem is now alleviated and their market price, especially for the small ruminants started to rise. Therefore, if the current rainfall continued up to September the crop, pasture and water problem in the project weredas will be solved and the number of food dependents will sharply decreased.

II. Objective of the program:

The objective of the drought and rehabilitation program is to:

- Promote the recovery of agricultural productivity and the protection and support of livelihoods and resilience among drought affected and resource poor farmers through the provision of seeds, ploughshares, small ruminants, oxen/heifers and construction of water harvesting schemes.
- Improve the quality and quantity of water supply and sanitation facilities on sustainable basis through the rehabilitation of existing water points and construction of new ones.

III. Annual planned activities Vs accomplishment:

3.1 agriculture and livestock rehabilitation sub program

3.1.1 Planned activities

- To provide grain seeds to 21450 and vegetable seeds to 1000 farmers.
- To provide cash to purchase heifers for 300 farmers, oxen for 1000, small ruminants for 2000 women headed households and ploughshares for 10000 farmers.
- To give training on inputs utilization for 1000 beneficiaries.

3.1.2 Activities accomplished

3.1.2.1 agriculture and livestock rehabilitation

Prior to the start of implementing the program discussion was undertaken with the respected weredas administrators, office for the water development, health office and agriculture and natural resource office on the objective of the program targeting of beneficiaries and implementation. Then after reaching a common understanding committee was established at wereda level of each project areas, which includes weredas REST experts, representatives from the weredas administration, and experts from the weredas health and water offices. Furthermore, at the Tabias level the relief and rehabilitation committees together with the development agents organized together as a committee to assist in providing appropriate market and related information to the beneficiaries and follow up whether the beneficiaries purchase the desired input with the money given from the project.

Before start of disbursing cash for the purchase of seeds, farm implements, livestock, and for pond construction REST conducted market assessment in collaboration with agricultural experts at each Wereda level. The market assessment helped to: -

- ❑ Determine the price of inputs (relevance of prices obtained during preparing the project document) and now.
- ❑ To determine the quality of inputs available and recommend purchase process.

Beneficiaries were selected using administrative and community targeting approaches, utilizing a set of screening criteria; Tabia relief and rehabilitation committee screened and listed legible beneficiaries. The list was then presented to the village general assembly for approval and ratification. The approved list of beneficiaries is transferred to the Woreda administration (rural development office) and then to REST for action.

The main beneficiaries targeting criteria's were:

- ❑ Rural households affected by drought and resources poor.
- ❑ Poor households who access land.
- ❑ Poor women headed households.

After completion of the market assessment and selection of beneficiaries, cash was disbursed directly by REST in the presence of Woreda and Tabia representatives. The cash recipients signed an agreement with REST, to properly use the cash to the intended purposes.

Frequent technical assistance and follow up was provided to beneficiaries to help them purchase and properly utilize the provided inputs by the experts of REST at each of the intervention weredas and extension agents of the project Tabias. The technical assistance rendered includes:

- ❑ Information on appropriate market places and purchasing period.
- ❑ Availability of resources and
- ❑ Quality of resources.

Having the disbursement of cash to beneficiaries and conducting orientation training on information of the market assessment and on how to select quality resources as well as areas where to find them the actual implementation was conducted as follows:

3.1.2.1.1 Seed Supply

Cash for the purchase of seeds was disbursed to 21,450 beneficiaries in nine Weredas. Due to the failure of belg rain no cash was disbursed during belg planting period. Trial was made to provide cash to beneficiaries in all Weredas in May with the assumption that farmers could plant long maturing crops, but again no rain. Therefore, farmers purchased and planted with the given money short maturing crops such as Teff, wheat, barley and pulses.

3.1.2.1.2 Livestock provision

Small ruminants mainly sheep and goats are critical assets to tackle food insecurity at household level. Small ruminants can increase in their number within a short period of time due to their short gestation period and can be sold quickly as they get matured very early. These increase the income source of beneficiaries. Hence, cash was disbursed to 2000 poor women headed households each to purchase three small ruminants and the activity was accomplished accordingly.

Oxen are essential inputs in crop production in the rural farming households. Accordingly 1,000 households received cash from the project each to buy one ox. All beneficiaries own on average 0.5hectare of land, which in most cases were forced to rent due to the absence of an ox. Oxen recipients who own their production are expected to improve their food security at household level as of the coming production period.

Moreover, cash was provided to 300 beneficiaries to be able to purchase one heifer each. The beneficiaries of the heifers are poor women headed households and these heifers are expected to increase cattle population and production of milk. Hence, the heifers will assist the beneficiaries as a source of income by selling the off springs, milk and butter. At the same time nutrition states of the family will be improved from the milk production and consumption at household level.

3.1.2.1.3 Farm implements - Ploughshare

Farmers in Tigray slowly loose their assists during emergency crises. In the drought years of 2002/2003 farmers lost their productive assets such as ploughshares and other farming tools. Sale of ploughshares is sign of destitution

since it is the last resort to sell. To avert the situation 10,000 beneficiaries were provided with cash enough to enable them purchase one ploughshare each.

3.1.2.1.4 Provision of vegetable seeds, spices, root crops and high value crops

It was planned to purchase and distribute 14036 kg of different vegetables, root crops, spices and high value crops during the physical year to change the feeding habits, and to generate additional income to the beneficiaries in the project weredas. Actually, 21126 kg different vegetables spices and crops. This variation comes from the beneficiaries' high demand for the sweet potato cuttings. The planned sweet orange seedlings were also distributed to the communities from the REST fruit seedling nursery freely. Then the budget allocated for this was shifted to buy additional sweet potato cuttings.

Among the vegetables purchased and distributed were: onion, tomato, pepper, cabbage, sweet chard, lettuce, carrot, Cumin and ginger. Moreover from the high value crops groundnut was purchased and distributed. Moreover, sweet potato cuttings, Soya bean and haricot bean were distributed to farmers who owned the hand dug wells.

The vegetables were found to be successful in the addition of dietary varieties and hence nutrition of the communities. Moreover, the beneficiaries were able to earn additional money on top of their consumption through selling and in return able to buy consumable commodities from the market. Hence, having the different sources of water at household level provision of vegetables, spices and fruit seedlings is of paramount important for the households to be able self sustained given the limited existing land. Therefore this is one of the best lesson learnt during the project period.

3.1.2.1.5 Training on input utilization

The main purpose of the training was to give practical skills on livestock, vegetable, Spices and fruit seedlings production and management. The training was given to 1016 beneficiaries, 102% of the planned target. Beneficiaries of the above activities are mostly women headed households deliberately designed to empower them, as they are accomplishing the responsibility of the husband on top of their responsibility.

The main contents of the training were:

- Animal feeding and housekeeping
- Signs and protection of different diseases
- Cropping of the different spices and vegetables,
- Watering, weeding and harvesting of the spices and vegetables
- Protection of pest infestation

At the end of the training period the trainees were made to grasp practical lessons from the nursery sites in their respected weredas.

Table –1 Amount of cash disbursed and number of beneficiaries by Inputs and wereda

| S / N | Wereda | Oxen | | Heifer | | S/ruminants | | Seed | | Plough Share | | Total beneficiaries | Total Cash |
|-------------|-----------------|------------------|------------------|------------------|----------------|----------------|----------------|------------------|------------------|------------------|-------------------|------------------------|---------------------|
| | | No of Benefi. | Cash | No of Benefi. | Cash | No of Benef | Cash | No of Benefi. | Cash | No of Benefi. | Cash | | |
| 1 | Raya Azebo | 100 | 100,000 | 30 | 24,000 | 200 | 72,000 | 2,300 | 276,000 | 933 | 88,635 | 3563 | 560,635.00 |
| 2 | Hintalo Wajerat | 100 | 100,000 | 30 | 24,000 | 240 | 86,400 | 2,500 | 300,000 | 1,167 | 110,865 | 4037 | 621,265.00 |
| 3 | Hawzien | 100 | 100,000 | 30 | 24,000 | 240 | 86,400 | 2,600 | 312,000 | 1,297 | 123,215 | 4267 | 645,615.00 |
| 4 | Wukro | 100 | 100,000 | 35 | 28,000 | 240 | 86,400 | 2,850 | 342,000 | 1,403 | 133,285 | 4628 | 689,685.00 |
| 5 | D/Tembien | 120 | 120,000 | 35 | 28,000 | 180 | 64,800 | 1,400 | 168,000 | 687 | 65,265 | 2422 | 446,065.00 |
| 6 | T/Abergelle | 120 | 120,000 | 35 | 28,000 | 180 | 64,800 | 1,800 | 216,000 | 624 | 59,280 | 2759 | 488,080.00 |
| 7 | Ahferom | 120 | 120,000 | 35 | 28,000 | 260 | 93,600 | 3,200 | 384,000 | 1,573 | 149,435 | 5188 | 775,035.00 |
| 8 | W/Leke | 120 | 120,000 | 35 | 28,000 | 260 | 93,600 | 3,000 | 360,000 | 1,489 | 141,455 | 4904 | 743,055.00 |
| 9 | M/Leke | 120 | 120,000 | 35 | 28,000 | 200 | 72,000 | 1,800 | 216,000 | 827 | 78,565 | 2982 | 514,565.00 |
| | Total | 1000 | 1,000,000 | 300 | 240,000 | 2000 | 720,000 | 21,450 | 2,574,000 | 10,000 | 950,000.00 | 34750 | 5,484,000.00 |

Case study

Zweditu Meresa, 30 years old benefited from the OFDA supported project, small ruminant, from wereda H/wajerat Tabia Hadnet. She was asked to comment on the benefits she got from the OFDA supported project during the reported period. She said, “I have four children and was frequently dependent on relief and seasonal migration. Now thanks to REST I have been given three goats at the beginning of the project period. She further explained three of the goats were pregnant and gives offspring, as a mater of chance; within two months from the time I bought them. One of them gives me second birth and the rest two are pregnant. I am using milk of the goats for my children and me as additional food and able to buy food selling one offspring. In addition to the occasional food aid that I got I avoid migration and settled in my home. This said Zewditu, “This shows me that in few years if I manage them properly can support myself without waiting for external assistance.”



Zewditu, a woman headed household with her hopeful goats

3.2 water supply and sanitation program

3.2.1 Planned targets

The planned activities under the water supply and sanitation program were:

- Development of 21 boreholes
- Construction of 30 new hand dug wells
- Rehabilitation of 30 springs and 30 hand dug wells
- Provision of VIP latrine, and
- Training for 330 water and sanitation committee members

3.2.2 Activities accomplished

3.2.2.1 Rehabilitation and construction of water points

The rainfall of Tigray has an erratic nature that causes not only drought but also a dramatic draw down in ground water table that resulted in drying up of hand dug wells. Therefore, the major work during rehabilitation was deepening of wells as far as the water bearing formation is completed. In addition to deepening reconstruction of cover slab, apron and reinstallation of Hand pumps are taken place. In the case of spring development the major work was on pipes and fitting replacement and also reconstruction of spring box and cover slabs. As a result the following water points are rehabilitated

Within the given reporting period rehabilitation of 30 of the planned springs was completed and is fully utilized by the local communities and livestock. Hence, 16695 people and 15148 livestock are being benefited from the water points.

Table 2: List of rehabilitated spring and number of beneficiaries

| S.N | Zone | Woreda | Tabia | Kushet | User Population | Livestock |
|--------------|---------|-----------|---------------|----------------|-----------------|--------------|
| 1 | Central | Ahferom | Sefeo | Kisad-ena | 382 | 600 |
| 2 | Central | Ahferom | Sefeo | Adi-Mereta (2) | 1000 | 800 |
| 3 | Central | Ahferom | Sefeo | Adi-Mereta (2) | 420 | 200 |
| 4 | Central | Ahferom | Sefeo | Mai-Woyni | 465 | 300 |
| 5 | Central | Ahferom | Kudo | Adi Wula | 750 | 600 |
| 6 | Central | Ahferom | Hadush Adi | Kelemay | 600 | 730 |
| 7 | Central | Ahferom | Edagahamus | Entibak | 520 | 1350 |
| 8 | Central | Ahferom | Adi satera | Endagergis | 320 | 200 |
| 9 | Central | W/Leke | Seguh | Mai tsaeda | 860 | 750 |
| 10 | Central | W/Leke | Seguh | Mai tsaeda | 648 | 600 |
| 11 | Central | W/Leke | Seguh | Mai tsaeda | 860 | 500 |
| 12 | Central | W/Leke | Seguh | Mai tsaeda | 580 | 660 |
| 13 | Central | W/Leke | Wuhdet | Hinizat | 375 | 260 |
| 14 | Central | D/Tembien | Limat | Adawro | 750 | 850 |
| 15 | Central | D/Tembien | Limat | Adawro | 520 | 500 |
| 16 | Central | D/Tembien | Selam | Adi Werho | 395 | 200 |
| 17 | Central | D/Tembien | Melfa | Maekel geza | 415 | 600 |
| 18 | Central | D/Tembien | M/Silasie | Adigezaeti | 550 | 385 |
| 19 | Central | D/tembien | Melifa | Mai sare | 650 | 675 |
| 20 | Central | D/Tembien | Aregien | Adi gateti | 1500 | 800 |
| 21 | Central | D/tembien | Simret | Dirigaza | 600 | 700 |
| 22 | Eastern | Wukro | Aynalem | Girdada | 675 | 834 |
| 23 | Eastern | Hawzien | D/bizen | Arena | 530 | 247 |
| 24 | Eastern | Hawzien | Muzuty | Teka | 350 | 100 |
| 25 | Eastern | Hawzien | Mai kado | Tselim haramz | 250 | 300 |
| 26 | Eastern | Hawzien | Hatset | Endarufael | 350 | 300 |
| 27 | Eastern | Hawzien | Hatset | Endarufael | 350 | 550 |
| 28 | Eastern | Hawzien | Debre abay | Sen'efti | 250 | 200 |
| 29 | Eastern | Hawzien | Tselim Harmat | Elachamo | 380 | 192 |
| 30 | Eastern | Hawzien | Degamba | Beles serge | 400 | 165 |
| Total | | | | | 16695 | 15148 |

In addition, all the hand-dug wells are also rehabilitated and 13770 people are getting clean drinking water from the rehabilitated hand dug wells.

Table 3: List of rehabilitated hand dug wells and number of beneficiaries per well

| S.No | Zone | Woreda | Tabia | Kushet | User Population |
|--------------|---------|-----------|--------------|-------------|-----------------|
| 1 | Central | Ahferom | Mishig | Agazien | 230 |
| 2 | Central | Ahferom | E/Arbi | E/Arbi | 180 |
| 3 | Central | Ahferom | Adi zata | Adiwon | 200 |
| 4 | Central | Ahferom | Adi-yikoro | Medebti | 214 |
| 5 | Central | Ahferom | Enda mariam | Mai-Suru | 312 |
| 6 | Central | W/Leke | Mai-Kuli | Mai-Atakti | 235 |
| 7 | Central | W/Leke | E/Hamus | Zaehumhan | 175 |
| 8 | Central | W/Leke | Wuhdet | Serae | 413 |
| 9 | Central | W/Leke | E/Hamus | Arebay | 250 |
| 10 | Central | W/Leke | Selam | Adi Negarit | 950 |
| 11 | Eastern | Hawzien | Baleada | Baleada | 466 |
| 12 | Eastern | Hawzien | Baleada | Baleada | 370 |
| 13 | Eastern | Hawzien | D/brihan | Atsegeba | 603 |
| 14 | Eastern | Hawzien | Mai-Kado | Lelema | 520 |
| 15 | Eastern | Hawzien | Hatset | E/rufael | 315 |
| 16 | Eastern | Wukro | Adi Kisandid | Belesa | 250 |
| 17 | Eastern | Wukro | D/tsion | Abi Adi | 450 |
| 18 | Eastern | Wukro | A/Atsibha | Mendae | 235 |
| 19 | Eastern | Wukro | Gemad | T/Naele | 482 |
| 20 | Eastern | Wukro | Negash | Maego | 350 |
| 21 | Central | M/Leke | Asyme | Adi Degol | 2000 |
| 22 | Central | M/Leke | Awet | Werera | 300 |
| 23 | Central | M/Leke | Adi Eleni | Adi Kidi | 450 |
| 24 | Central | M/Leke | Haftom | Keren | 320 |
| 25 | Central | M/Leke | Abinet | Tareke | 500 |
| 26 | Central | D/tembien | Limat | Agerbae | 250 |
| 27 | Central | D/tembien | Limat | Agerbae | 400 |
| 28 | Central | D/tembien | Adi azmera | Sesma | 750 |
| 29 | Central | D/tembien | Adi azmera | Tikule | 100 |
| 30 | Central | D/tembien | Limat | Mai Gua | 1500 |
| Total | | | | | 13770 |

Moreover, all the planned hand dug wells are constructed, out of which 4 of them found to be dry. These completed new hand dug wells and the rehabilitated hand dug wells and springs are handed over to the respected wereda and Tabias Baito and refresher training to the water and sanitation committees of the water points and basic for the newly

constructed ones was given before the communities start to use the water points for three days. From the newly constructed hand-dug wells 11387 people are able to get safe and clean water in the very reasonable distance from their homestead.

Table 3: List of newly constructed hand dug wells and number of beneficiaries per well

| S.No | Zone | Woreda | Tabia | Kushet | Population | Construction Status |
|--------------|---------|-----------|------------------|---------------|--------------|---------------------|
| 1 | Central | W/Leke | E/Chiwa | Biherawi | 450 | Complete |
| 2 | Central | W/Leke | Mai-chekmte | Hadush Adi | 560 | Complete |
| 3 | Central | W/Leke | Tsaei | Tsaei | 0 | Dry |
| 4 | Central | W/Leke | Endachiwa | T/Endachiwa | 0 | Dry |
| 5 | Ceneral | W/Leke | Simret | Wechi | 500 | Complete |
| 6 | Central | Ahferom | Endi-geganu | Adi-Kiheto | 0 | Dry |
| 7 | Central | Ahferom | Endi-geganu | Emba Rekina | 270 | Complete |
| 8 | Central | Ahferom | T/megaria Tsebri | Liham | 355 | Complete |
| 9 | Central | Ahferom | E/mariam | Menadik | 250 | Complete |
| 10 | Central | Ahferom | Edaga Arbi | Adebura | 500 | Complete |
| 11 | Eastern | Hawzien | D/Birhan | Atsgeba | 525 | Complete |
| 12 | Eastern | Hawzien | Graeras | Enda K/mihret | 652 | Complete |
| 13 | Eastern | Hawzien | D/Birhan | Adi-Kkeyhati | 750 | Complete |
| 14 | Eastern | Hawzien | F/wayni | Mai-Tekli | 470 | Complete |
| 15 | Eastern | Hawzien | Megab | Megab | 500 | Complete |
| 16 | Eastern | Wukro | Aynalem | Hanza | 300 | Complete |
| 17 | Eastern | Wukro | Kihen | Kentefa | 620 | Complete |
| 18 | Eastern | Wukro | A/Atsibha | Mendae | 0 | Dry |
| 19 | Eastern | Wukro | Negash | Kalhabile | 300 | Complete |
| 20 | Eastern | Wukro | Negash | Adikesho | 250 | Complete |
| 21 | Central | M/Leke | Mai-Woyini | Adi degal | 415 | Complete |
| 22 | Central | M/Leke | Medhin | Degen | 310 | Complete |
| 23 | Central | M/Leke | Medhin | Edagahamus | 300 | Complete |
| 24 | Central | M/Leke | Asyme | Asyme | 260 | Complete |
| 25 | Central | M/Leke | Abinet | Adi auga | 600 | Complete |
| 26 | Central | D/tembien | Kewanet | H/selam | 750 | Complete |
| 27 | Central | D/tembien | D/nazret | Segenet | 600 | Complete |
| 28 | Central | D/tembien | Seret | Endamariam | 250 | Complete |
| 29 | Central | D/tembien | Mizan | Menachik | 275 | Complete |
| 30 | Central | D/tembien | Mizan | Menachik | 375 | Complete |
| Total | | | | | 11387 | |

With regard to boreholes it was planned to construct 21 water points. During implementation it was possible to develop 30 boreholes, 30% over the plan due to the availability of water below the planned depth in most places, which reduces the cost of construction, with the allocated money for the 21 boreholes construction, and the demand from the rural communities within the project weredas for potable water. From the total constructed boreholes one found to be to be dry. The water points are handed over to the

respected weredas water development offices and beneficiary communities. Training on protecting, handling and fee collection as well as sanitation was given to 108 elected water and sanitation committee members of the respected sites. As a result the already constructed boreholes are serving for 18596

people. For the rest site selection is completed and will be accomplished within the given FY.

Table 4: Constructed boreholes by location and number of beneficiaries

| S/N | Zone | Wereda | Tabia | Kushet | Site | No. of Beneficiary population | Remark |
|--------------|---------|-----------|-------------|---------------|--------------|-------------------------------|--------|
| 1 | Eastern | Wukro | Maikuha | Beati-Akor | Mai-Ayni | 500 | |
| 2 | Eastern | Wukro | Tsigereda | Kambo | Walka | 450 | |
| 3 | Eastern | Wukro | Awaleo | Zeana | Sewhiferes | 1500 | |
| 4 | Eastern | Wukro | Negash | Meago | Adiha | 300 | |
| 5 | Eastern | Wukro | Aynalem | Girdada | Maidongola | 500 | |
| 6 | Eastern | Wukro | D/tsiyon | AbyiAdi | Kal Hutsa | 200 | |
| 7 | Eastern | Wukro | Genfel | Dengolo | Gira Hatsera | 1500 | |
| 8 | Eatern | Hawzien | Baleda | AdiGefah | | 360 | |
| 9 | Eatern | Hawzien | Megab | Megab | | 564 | Dry |
| 10 | Eatern | Hawzien | Digum | Digum | | 358 | |
| 11 | Eatern | Hawzien | Simret | Sakua | | 653 | |
| 12 | Eatern | Hawzien | D/Abay | Engifa | | 584 | |
| 13 | Eatern | Hawzien | Smret | E/Selus | | 465 | |
| 14 | Central | M/Leke | Mihukan | Adi-G/Eyesus | Mai-Chena | 300 | |
| 15 | Central | M/Leke | Haftom | Emba-Tsaeda | Agamat | 500 | |
| 16 | Central | M/Leke | Assayme | Tsaelega | Hitsa | 850 | |
| 17 | Central | M/Leke | Simret | Legaso | Mai-Laelay | 750 | |
| 18 | Central | Merebleke | Suhul | Simret | | 450 | |
| 19 | Central | Merebleke | Medhin | Mai-Ayni | | 812 | |
| 20 | Central | Merebleke | Haftom | Keshawti | | 463 | |
| 21 | Central | W/Leke | Edaga-Hamus | Mequndai-Lam | Enagodo | 350 | |
| 22 | Central | W/Leke | Edaga-Hamus | Mequndai-Lam | | 478 | |
| 23 | Central | W/Leke | Tsae | Tikul | Mai-Gudguad | 1000 | |
| 24 | Central | W/Leke | Mai-Tuem | Goneq | Farka | 750 | |
| 25 | Central | W/Leke | Addis -Alem | Addi-Argeto | Tunka | 440 | |
| 26 | Central | W/Leke | Addis -Alem | Addi-Argeto | Giramariam | 720 | |
| 27 | Central | W/Leke | Hibret | Hanse | | 652 | |
| 28 | Central | W/Leke | Zongi | Endarbeetensa | | 672 | |
| 29 | Central | W/Leke | MaiSagla | Nehae | | 765 | |
| 30 | Central | Ahferom | Dibdibo | Lihuts | | 710 | |
| Total | | | | | | 18596 | |

Water Quality Test results taken from sampled protected water points

A. Hand Dug Well

| S/no | Woreda | Tabia | Kushet | Bactorological data (faecal coliform colony) | PH | NO ₂ | Mn | NO ₃ | SO ₄ | Cl ⁻ | NTU Turbidity |
|------|-----------|---------|-----------|---|-----|-----------------|-------|-----------------|-----------------|-----------------|------------------|
| 1 | M/Leke | Asyme | Asyme | 50 Coliform/100ml | 6 | 0.12 | 0.002 | 0.82 | 35 | 13 | >6 |
| 2 | Hawzien | F/wayni | Mai-Tekli | 95 Coliform/100ml | 5 | 0.22 | 0.001 | 0.62 | 18 | 10 | <7.5 |
| 3 | D/tembien | Mizan | Menachik | 35 Coliform/100ml | 5.5 | 0.15 | 0.01 | 0.31 | 21 | 14.8 | <8 |

B. Spring Development

| S/N | Woreda | Tabia | Kushet | Bacteriological data (faecal coliform colony) | PH | NO ₂ | Mn | NO ₃ | SO ₄ | Cl ⁻ | NTU Turbidity |
|-----|---------|-------|------------|---|-----|-----------------|-------|-----------------|-----------------|-----------------|---------------|
| 1 | W/Leke | Seguh | Mai tsaeda | 110 Coliform/100ml | 5 | 0.2 | 0.01 | 0.5 | 38 | 8.7 | >6 |
| 2 | Ahferom | Sefeo | Mai-Woyini | 98 Coliform/100ml | 5.6 | 0.18 | 0.002 | 0.7 | 29 | 10 | >7 |

C. Boreholes

| S/no | Woreda | Tabia | Kushet | Bacteriological data (faecal coliform colony) | PH | Mn | NO ₃ | SO ₄ | Cl ⁻ | NTU Turbidity |
|------|---------|-------------|--------------|---|-----|-------|-----------------|-----------------|-----------------|---------------|
| 1 | Central | M/Leke | Haftom | Emba-Tsaeda | 6.5 | 0.002 | 22 | 55 | 110 | <4.5 |
| 2 | Wukro | Tsigereda | Kambo | 0 Coliform/100ml | 7 | 0.001 | 20 | 18 | 60 | <3 |
| 3 | W/Leke | Edaga-Hamus | Mequndai-Lam | 0 Coliform/100ml | 7.5 | 0.01 | 19 | 21 | 32 | <2 |
| 4 | Central | Ahferom | Dibdibo | 1 Coliform/100ml | 8.5 | 0.02 | 33 | 28 | 41 | <2.2 |

The result of the physical and chemical analysis indicated in the tables above shows that the improved water supply is safe and free of toxic or contaminant elements. The amount of the elements within the water points is acceptable for drinking according to the WHO standard.

Case study

W/ro Arregawit Abreha, 35, is one of the beneficiaries of the constructed hand dug well in wereda Wukro, Tabia Debretsion, kushet Abiyadi. The monitoring team asked her to give her view about the condition of water source before and after construction of the water point in her village. She said, 'prior to the construction of the hand dug well in our surrounding we used to fetch water from more than 3 hours round trip. Even going to such a long distance, it was not possible for us to get clean water. Moreover, we have to keep our turn for not less than half an hour, as there comes many users from different parts of the surrounding Tabias. Then, my children were getting tired and this was affecting their education. They became late and perform less in their education, as they had no time to study. Now thanks to REST we are able to get clean water in ten minutes walk from home without spending more time in keeping turn. Hence my children now are able to attend their education in time, have ample time for study and I hope they will improve their performance.



When the water point is nearby to the villages even older people can fetch water on themselves

3.2.2.2 Major Activities accomplished in the Environmental Sanitation Program

According to the plan in the first quarter 800 VIPL slabs making tender has been released, winner know, agreement signed and work commenced. At this time all the planned total slabs are distributed to 800 beneficiaries of the project weredas and are already constructed and started using it.

Through the provision of training on environmental and personal hygiene and on how to keep the potable water clean to the water and sanitation committees, and providing VIP latrine beneficiaries, there started a good indication of improvement in the health condition of the communities, they started cleaning their compounds and their animals home.

3.3 agricultural and livelihoods recovery program

3.3.1 Planned activities

The planned activities under the agricultural and livelihoods recovery were:

- Construction of 200 household ponds for irrigation
- Construction of 150 hand dug wells for irrigation
- Provision of 450 set of family drip and treadle pumps to 450 beneficiaries

3.3.2 Activities accomplished

All the planned household ponds are constructed within the given time. Moreover, 150, all the planned hand dug wells for irrigation, is constructed. Although the plan was to purchase treadle pump and family drip, the demand for treadle pump from the community was very high. As a result considering the demand and cost of the family drip it was found rational to purchase only the treadle pumps so as to cover more beneficiaries and satisfy their demand. Hence, 693-treadle pump purchased and distributed to 693 beneficiaries and are using it to draw the water from the ponds and hand dug wells constructed in their homesteads to produce vegetables and fruits. Participation of the communities in constructing the ponds and the hand-dug wells was very much

encouraging as the communities are realizing the benefit of holding water for using as a supplementary and home gardening.

Table 5: List of constructed hand dug wells for irrigation

| S.N | Zone | Woreda | No of constructed hand dug wells for irrigation |
|--------------|----------|------------|---|
| 1 | Central | Ahferom | 17 |
| 2 | Central | W/Leke | 18 |
| 3 | Central | M/Leke | 15 |
| 4 | Central | D/Tembien | 20 |
| 5 | Central | T/Abergele | 13 |
| 6 | Eastern | Wukro | 14 |
| 7 | Eastern | Hawzien | 18 |
| 8 | Southern | H/Wajerat | 17 |
| 9 | Southern | Raya-Azebo | 18 |
| Total | | | 150 |

With the already constructed ponds and hand dug wells 350 households become owners of their own water points and started using the reserved water for their livestock and washing of house utensils.

Especially women show their interest and involvement in the construction of hand-dug wells as it saves time and workload in fetching water from far distance in terrible terrain during the rainy season for household consumption except drinking.

The ponds and hand-dug wells are of small scale and are under the skill and capacity of the farmers with short term basic and occasional refresher training.

Case study

Abreha Weldu is 35, married and has 5 children in wereda W/Leke TabiaEdagaHamus. The monitoring and evaluation team from REST head office asked him about the importance of the project. He said, “many families of my surrounding are being benefited by the project in terms owning oxen, heifer, small ruminants and water points for irrigation. I used to cope the gap seasons using working on the urban areas as daily labourer, through lending from others and when the worst comes through migrating to other areas. Now thanks to REST I owned one pond for irrigation and get training on horticulture production and management. At the end I was given different vegetables, like Tomato pepper and lettuce and I saw them on 0.115ha of land. Then first of all I started to consume more at home from the vegetables including my families, and I earn about birr 100 from tomato, birr 85 from lettuce and birr 200 from pepper totally birr 385

through selling on the nearby market. This year I was able to buy one quintal of sorghum for my house as well as buy clothe for my families and me with out looking to other peoples face. Therefore, I have the plan to work more on the vegetables and to plant fruit plants to diversify and increase my earnings as of the coming year expanding the farmland and adding additional one pond.”



Case study

Tesfamariam Abay from wereda Hawzien Tabia Degamba is 33, married and has 4 children. The monitoring and evaluation team asked him to give his opinion on the OFDA supported project in his area. Tesfamariam said, “Before the start of the project it was hard time for me to support my family because of the repeated drought and very low yield that I got every year. Thanks to REST, Many households including myself are becoming beneficiaries from the different packages that was planned to improve our life. With regards to me I able to own one hand dug well and given with vegetable and spices seeds to be able to support myself. To facilitate my work I was also given one treadle pump, which can lift the water from the well with less labour. Using the inputs I got from the project I planted Cumin, pepper, coriander, onion and tomato in 925m² of land. First of all I was able to satisfy for my home and able to consume more than any time before. On top of that I was able to earn birr 3351. This is the highest earning that I got from the time I started to support myself. As a result I was able to pay all my debts. From my relatives, I was able to buy enough food and cloth for my families from the market and let my children start to attend their education without dropping, as the experience that I passed before. Therefore, I have the plan to work more on the vegetables and to plant fruit plants to diversify and increase my earnings as of the coming year expanding the farmland.”

4. Monitoring and evaluation of the project

After disbursement of the cash the committees at each Tabia level are mainly monitor whether the beneficiaries are using the money for the purchase of the intended items with the desired quality and at reasonable price.

Then regular monitoring and evaluation is conducted by the wereda level committees and REST head office programming, monitoring and evaluation experts as well as experts from the implementation departments.

The Tabia committees evaluate and monitor the activities at the end of every week. The wereda level committees and experts from REST head office meet together every month to evaluate the project and monitor the activities taking sample project sites in the field and give on the site solution to problems arising in implementation of the project.

Construction of the rural water supplies, and ponds and hand dug wells for irrigation was also monitored regularly by REST experts and respected weredas water resource development offices experts.

5. Changes made

In the actual implementation for the rehabilitation of the project it was not possible to find springs to be rehabilitated in Mereb-Leke wereda, and only one was found in Wukro. On the other hand the number of springs need to be rehabilitated for Hawzien, D/Temben and Ahferom were above the planned set in the proposal. Hence, within the project weredas shifting from one to the other it was possible to rehabilitate 30 of the planned springs.

Due to the demand of the communities in the case of the water lifting technologies only treadle pumps are purchased adding the number from the plan by shifting the money allocated for the family drip.

6. Constraints and problems observed during implementation of the project

The delay in rainfall up to the end of July 2004 created a serious feed and water problem to the purchased livestock and make the beneficiaries spent substantial amount of their meager resource to protect them from dying.

Time taking of purchasing of the construction materials such as reinforcement rod as there was shortage at the market, both in the region and at national level contributes to the delay in the construction and rehabilitation of the water points.

Inability to find springs for rehabilitation in wereda Wukro and M/Leke as planned

One technician left his work, which create delay in the water points construction for about one month, till recruitment of another person.

As the effect of drought in the region is very serious the depth of the newly constructing and rehabilitating water points goes beyond the expected plan. This additional work consumes much time, which delays the timely accomplishment of the water points. Moreover, 4 of the 17 newly constructed hand dug wells were found to be dry.

6. Quarterly date collection

Except in the case of agricultural and livelihoods recovery programs about 96% of the targeted beneficiaries are reached. Therefore, the objectives are fulfilled satisfactorily.

Number of beneficiaries targeted by objective during the period

| S/N | Objective | Unit | Quantity |
|-----|--|--------|--------------|
| | Agriculture and livestock rehabilitation | Person | 34750 |
| | Water supply and sanitation | Person | 45680 |
| | Agricultural and livelihoods recovery | Person | 1730 |
| | Total | | 82160 |

Number of beneficiaries reached by objective during the period

| S/N | Objective | Unit | Quantity |
|-----|--|--------|--------------|
| | Agriculture and livestock rehabilitation | Person | 34750 |
| | Water supply and sanitation | Person | 55098 |
| | Agricultural and livelihoods recovery | Person | 1858 |
| | Total | | 91706 |

Cumulative number of beneficiaries targeted by objective to date

| S/N | Objective | Unit | Quantity |
|-----|--|--------|--------------|
| | Agriculture and livestock rehabilitation | Person | 24750 |
| | Water supply and sanitation | Person | 52912 |
| | Agricultural and livelihoods recovery | Person | 2350 |
| | Total | | 80012 |

Cumulative number of beneficiaries reached by objective to date

| S/N | Objective | Unit | Quantity |
|-----|--|--------|--------------|
| | Agriculture and livestock rehabilitation | Person | 21450 |
| | Water supply and sanitation | Person | 53812 |
| | Agricultural and livelihoods recovery | Person | 350 |
| | Total | | 75612 |

Total number of beneficiaries targeted and reached to date

| S/N | Unit | Beneficiaries targeted | Beneficiaries reached |
|-----|--------|------------------------|-----------------------|
| | Person | 82160 | 91706 |